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REMARKS/DISCUSSION OF ISSUES

By this Amendment, Applicants amend claims 1, 5, 7, 9 and 12.

Accordingly, claims 1-15 are pending in the application.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

ABSTRACT

An Abstract presented on a separate sheet is attached hereto.

Accordingly, Applicants respectfully request that the objection to the Abstract be withdrawn.

CLAIM OBJECTIONS

By this Amendment, Applicants amend claims 1, 5, 9 and 12 to correct minor errors.

Accordingly, Applicants respectfully request that the objection to the Claims be withdrawn.

35 U.S.C. § 103

The Office Action rejects: claims 1-3, 5-10, 12 and 15 under 35 U.S.C. § 103 over Koch U.S. Patent 5,367,665 ("Koch"); claim 4 under 35 U.S.C. § 103 over Koch in view of Jablon U.S. Patent 5,421,006 ("Jablon"); claims 11 and 14 under 35 U.S.C. § 103 over Koch in view of Anderson U.S. Patent 6,263,453 ("Anderson"); and claim 13 under 35 U.S.C. § 103 over Koch in view of Wikipedia.

Applicants respectfully traverse those rejections for at least the following reasons.

Claim 1

Among other things, in the method of claim 1, the microcontroller unit has at least one non-volatile memory area associated with it, and at least one set of statistics, including at least a set of fault statistics, relating to the operation of the microcontroller unit, can be kept by means of the memory area.

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The Office Action fairly admits that <u>Koch</u> does not disclose any non-volatile memory area associated with a microcontroller unit by which can be kept at least one set of statistics, including at least a set of fault statistics, relating to the operation of the microcontroller unit.

However, the Office Action states that it would have been obvious to have modified <u>Koch</u> to make the memory of its microprocessor to be non-volatile because "*vehicles are periodically shut down*" and "*non-volatile memory does not require voltage to maintain data and would this preserve the vehicle's battery power.*"

Applicants respectfully disagree for at least the following reasons.

At the outset, <u>Koch</u> discloses a system wherein a processor includes an "**internal counter**" for the processor that counts resets that are transmitted to the processor.

The Office Action fails to explain how or why non-volatile memory is supposed to be used for an **internal counter** in a processor. Indeed, the Office Action fails to cite a single example of a processor which operates an internal counter using non-volatile memory. Meanwhile, it is unknown how a processor is supposed to be constructed and execute instructions with a nonvolatile internal counter.

Furthermore, the Examiner fails to explain why it even would be desired to preserve the counter value of the number of processor resets after the vehicle is shut down! Indeed, this would seem to be counterproductive, because if the counter value is not dumped whenever the vehicle is shut down, then if the pre-given maximum number of resets is ever received by one processor during its lifetime, then the processor would be permanently transferred into a standby condition!

Additionally, one could not simply replace <u>Koch</u>'s processor's volatile memory with nonvolatile memory without suffering from certain disadvantages, including the inability to modify or update the processor's program code in the course of ongoing volume production.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 1 is patentable over <u>Koch</u>.

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Claims 2-3, 10 and 12

Claims 2-3, 10 and 12 depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

In the method of claim 2, the memory area is permanently supplied by at least one battery unit.

Koch does not disclose any memory that is **permanently** supplied by at least one battery unit. The internal counters/memory in Koch's processors 12 and 14 are not permanently supplied by the battery unit, but only receive power when the ignition key is turned. Indeed, the Office Action apparently concedes that Koch's processors are only supplied with battery power when the key is turned.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 2 is clearly patentable over Koch.

Claim 5

Among other things, the base chip of claim 5 includes at least one non-volatile memory area that can be read from and written to by the microcontroller unit, and by means of which at least one set of fault statistics relating to operation of the microcontroller unit, can be produced.

As explained above with respect to claim 1, Koch does not disclose or suggest any base chip that includes such a non-volatile memory area.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 5 is patentable over Koch.

Claims 6-9 and 15

Claims 6-9 and 15 depend from claim 5 and are deemed patentable for at least the reasons set forth above with respect to claim 5, and for the following additional reasons.

In the base chip of claim 7, the memory area and the supply unit are permanently supplied with power from at least one battery unit, and the microcontroller unit has at least one temporary energy supply provided to it via the supply unit.

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In contrast, the internal counters/memory in <u>Koch</u>'s processors 12 and 14 are not permanently supplied by the battery unit, but only receive power when ignition key is turned. Furthermore, it is unknown how or why someone would attempt to modify <u>Koch</u> such that the internal counters/memory in <u>Koch</u>'s processors 12 and 14 would be permanently supplied by the battery unit, while the processors 12 and 14 themselves would only be supplied with temporary power.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 7 is clearly patentable over <u>Koch</u>.

<u>Claim 4</u>

Claim 4 depends from claim 1. Applicants respectfully submit that <u>Jablon</u> does not remedy the shortcomings of <u>Koch</u> as set forth above with respect to claim 1. Therefore, claim 4 is deemed patentable for the reasons set forth above with respect to claim 1, and for at least the following additional reasons.

The Office Action states that someone would have been motivated to modify <u>Koch</u>'s system to provide a "*write protection mechanism that is immune to malicious software attempts to enable memory-writing.*"

Applicants feel compelled to point out that the "memory" that the Office Action proposes to modify is an internal counter in <u>Koch</u>'s processor inside of an automobile that contains a count value that is only used when the car is operating. Applicants fail to understand the threat to such an internal counter from "*malicious software attempts to enable memory-writing.*"

So Applicants traverse the proposed combination as lacking any rational basis.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 4 is patentable over the cited art.

<u>Claims 11 and 14</u>

Claims 11 and 14 depend respectively from claims 1 and 5. Applicants respectfully submit that <u>Anderson</u> does not remedy the shortcomings of <u>Koch</u> as set forth above with respect to claims 1 and 5. Therefore, claims 11 and 14 are deemed

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patentable for the reasons set forth above with respect to claims 1 and 5, respectively, and for at least the following additional reasons.

The cited text in <u>Anderson</u> does not disclose storing any statistics on a plurality of different types of reset events. Instead, it merely discloses a single powerfail counter which counts the number of times that power failure occurs during a memory access operation.

Therefore, no combination of <u>Koch</u> and <u>Anderson</u> could produce a method or system where a non-volatile memory area stores statistics on a plurality of different types of reset events.

Accordingly, for at least this additional reason, Applicants respectfully submit that claims 11 and 14 are patentable over the cited art.

<u>Claim 13</u>

Claim 13 depends from claim 1.

The Office Action cites Wikipedia.

It is well known that Wikipedia is constantly updated. The Office Action fails to establish when the cited portions of the Wikipedia were first published. Therefore, the Office Action files to make out a *prima facie* case that the cited portions of the Wikipedia article on random access memory are prior art for the current patent application.

Therefore, Applicants respectfully traverse the rejection based on Wikipedia.

Furthermore, in the base chip of claim 13, the **non-volatile memory area** comprises a random access memory. The Office Action has failed to mention any reason why anyone would have modified <u>Koch</u>'s internal counter/memory to be non-volatile random access memory.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 13 is patentable over the cited art.

<p align="center">**CONCLUSION**</p>

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 1-15 and

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pass the application to issue. In the event that there are any outstanding matters

remaining in the present application, the Examiner is invited to contact Kenneth D.

Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

Respectfully submitted,

VOLENTINE & WHITT

Date: 8 April 2008   By: _____
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